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How to link computers to single Internet connection

If you have more than one computer in your home office, you may wonder whether they can share a single Internet connection.

This is particularly a pressing issue if you have a high-speed cable modem or ADSL connection to the Internet — sharing a connection would let anyone in your home enjoy the benefits of such a service.

But you also may want to know how two or more computers can use a single telephone line to access the Internet through a dial-up connection.

Several programs allow you to do this. To take advantage of them, you must go through the process of networking your computers (a topic covered in a previous column).

Once you've completed that step, locate a modem-sharing program or "proxy" program. You can find an extensive list of those available at Web sites including TuCows (direct.tucows.com/share95.html for Windows, direct.tucows.com/mac/sharemac.html for Macintosh). Most will work with both a dial-up connection and a high-speed cable or ADSL connection.

One such program is WinGate (www.wingate.net), which you install on your home computer that has the cable modem, ADSL or dial-up connection to the Internet. You can also install it on a computer that will be dedicated to WinGate — that ensures the computer you generally use isn't slowed down by WinGate running all of the time.

Once the program is installed, you provide some set-up details related to your Internet connection (such as phone number, user ID and password if you are using a dial-up connection, or other details for a cable modem connection).

On your other computers, configure your Web browser and other Internet software programs to connect through the WinGate computer. Now you're in business. It may take a couple of hours to figure out how to put it all together.

There are potential problems and limitations with using proxy programs. For example, I found that when using WinGate, many Java-based Internet sites were simply not accessible. Other frustrating problems related to security also arise. They appeared to be the result of some basic limitations in the way these programs work.

Eventually, I came across a more



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technically robust solution: FirePlug (www.fireplug.net), a project by two Canadian Internet veterans. Based on a modified version of the Linux operating system, FirePlug was built with the sole purpose of permitting cable modem or ADSL customers to link multiple computers to the Internet through a single, dedicated machine, while protecting all of them against unauthorized access from the outside world.

I've been using FirePlug for several months and find that it offers a far better solution than other programs mentioned above. One key advantage is that it doesn't need much hardware — I've got an old 486 computer with one floppy disk drive that serves as the FirePlug machine, which lets about 10 computers throughout the home access the Internet at any time.

While it's a little more challenging to set up, FirePlug offers a stunning simplicity: it automatically configures each computer to access the Internet, a step that must be done manually with programs such as WinGate.

The biggest benefit is that its developers are firm believers in the open source software movement so prevalent on the Internet.

You should be aware that linking multiple computers to the Internet through a cable modem or ADSL connection is something your cable or telephone company won't support. Indeed, it might even be in violation of your user agreement. Having said that, these companies likely know that many of their customers have done this, and tend to turn a blind eye to the activity. Keep in mind that a few of them propose an even easier method of dealing with the challenge, by offering you a second Internet address for a second computer for a small fee.

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